

ATTACHMENT III

Patent Claims

1. (currently amended) A system for automatically monitoring and controlling of the position of ~~at least one~~ track-guided vehicles (22, 37, 40, 43, 44, 45), especially rail-vehicle, and for the emission of warning signals, ~~whereas in the vehicle preferably continuous the position of the vehicle (22, 37, 40, 42, 43, 44, 45) under use of transmitter/receiver units (18, 19, 47) being provided in the area of the travelling over tracks respectively rails (21, 34, 35, 36) and for comparison with the determined respectively previously given data, referring to the route to be travelled on, is characterized that way, that by occurrence of dangerous situations, the vehicle (22, 37, 40, 42, 43, 44, 45) sends warning signals at least to other vehicles (22, 37, 40, 43, 44, 45) being in the local close zone, especially to those, which are travelling on a different way from the immediate passing over way, comprising:~~

a first track-guided vehicle,

a guiding-track on which said first tracked-vehicle travels a first route distance,

a plurality of transmitter units for transmitting positioning signals to said first tracked vehicle, said plurality of transmitter units being positioned along said guiding-track of said first route distance,

at least one receiver unit mounted on said first track-guided vehicle, said at least one receiver unit including a transmitter section for transmission of warning signals,

an arithmetic unit mounted on said first track-guided vehicle, said arithmetic unit programmed with predetermined data of said first route distance, said predetermined data including geographic data and real-time location data of said plurality of transmitter units positioned along said guiding-track of said first route distance, and

comparator means for comparison of said predetermined data and said real-time position data of said first track-guided vehicle on said first route distance and for

issuing to said transmitter section for transmission to a second track-guided vehicle of at least one of the group of the results data of the comparison, current position data of said first tracked-guided vehicle, identification data of said first tracked-guided vehicle, and at least one ~~(type of)~~ warning signals, said comparator means having a storage section.

2. (currently amended) The system according to claim 1, ~~is characterized that way, that from a vehicle (22, 37, 40, 42, 43, 44, 45) different warning signals corresponding to different dangerous situations are emitted,~~ wherein said at least ~~(type of)~~ one warning signal is a plurality of warning signals, said plurality of warning signals corresponding to different types of warning situations are emitted.
3. (currently amended) The system according to claim 1, ~~characterized that way, that from the vehicle (22, 37, 40, 42, 42, 44, 45) furthermore preferably continuous data concerning the position and identification to other vehicles (22, 37, 40, 42, 43, 44, 45) being in the local close zone, and/or to control stations are transmitted ,~~ wherein said transmission section continuously transmits current position of said first tracked-guided vehicle and identification of said first tracked-guided vehicle to said second track-guided vehicle and at least one control station.
4. (currently amended) The system according to claim 1, ~~characterized that way, that the vehicle (22, 37, 40, 42, 43, 44, 45) receives preferably continuous from other vehicles (22, 37, 40, 42, 43, 44, 45) in the local close zone, data concerning the position and identification of these vehicles (22, 37, 40, 42, 43, 44, 45) ,~~ wherein said at least one receiver unit continuously receives current position data of said second tracked-guided vehicle and of identification data of said second tracked-guided vehicle and said comparator means compares [them] said current position data of said second tracked-guided vehicle and said identification data of said second tracked-guided vehicle with those determined and previously given data concerning the distance to be travelling on and checks if there are possible dangerous situations said predetermined data and said

real-time position data of said first tracked-guided vehicle to determine whether said at least one (type of) warning signal is to be transmitted by said transmitter section.

5. (currently amended) The system according to claim 1, ~~characterized that way, that preferably continuous a check-up of the availability of the warning systems and/or a check-up of the functionality of the transmitter-receiver units (18, 19, 47) implanted in the area of the travelling on tracks respectively rails (21, 34, 35, 36) is carried out and that by occurrence of a mistake, warning signals are emitted and/or a stop of the vehicle (22, 37, 40, 42, 43, 44, 45) is effected, further comprising evaluator means for evaluating the functionality of said plurality of transmitter units and said comparator means and to act reflecting functionality from one of the group of causing said transmission section to emit a warning signal or causing the first tracked-vehicle to stop .~~
6. (currently amended) The system according to claim 1, ~~characterized I that way, that the transmitter-receiver units (18, 19, 47), which are implanted on the area of the travelling on tracks respectively rails (21, 34, 35, 36) are equipped with an encoding, e.g. wherein said signals transmitted by said plurality of transmitter units include signals indicating geographic co-ordinates.~~
7. (currently amended) The system according to claim 1, ~~characterized in that way, that a storage at least of the data of the previous transmitter-receiver units is carried out, and these data together with identification data of the vehicle (22, 37, 40, 42, 43, 44, 45) are emitted with the emission of warning signals wherein said storage section stores storage data from said plurality of transmitter units and said receiver unit, said storage data and said identification data being emitted along with said warning signals.~~
8. (currently amended) The system according to claim 1, ~~characterized in that way that wherein said transmission section transmits warning signals are transferred via preferably on international alarm- or warning frequencies.~~
9. (currently amended) A system for the automatic monitoring and controlling of the

position of at least one track-guided vehicle traveling a first route distance, especially
rail-vehicle and for the emission of warning signals, ~~whereas the vehicle (22, 37, 40, 42,~~
43, 44, 45) ~~consists of~~ comprising:

a guiding track-rail,

a plurality of transmitter units for transmitting positioning signals to said at least one
7 track-guided vehicle, said (transmitter) units being integrated into the area adjacent to
said guiding rail-track,

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an arithmetic unit mounted on said at least one track-guided vehicle, said arithmetic
unit programmed with predetermined data of said first route distance, said
predetermined data including geographic data and location data of said plurality of
transmitter units positioned along said track-rail of said first route distance, and

at least one unit (2) for the monitoring and controlling of the position ~~under the use of~~
~~transmitter-receiver units (18, 19, 47) which are integrated in the area of the travelling~~
~~on tracks respectively rails (21, 34, 35, 36) of said at least one track-guided vehicle,~~
for storing predetermined data of said first route distance, said predetermined data
including geographic data and real-time location data of said plurality of transmitter
units positioned along said track-rail of said first route distance and for comparison
20 ~~with the determined respectively previously given data referring to the way to be~~
~~travelled on, characterized in this way, that furthermore and (, for) comparing said~~
~~predetermined data and said real-time location data and a unit (2) is foreseen for~~
~~emission emitting and receiving of warning signals in relation to at least to other~~
~~vehicles (22, 37, 40, 42, 43, 44, 45) being in the local close zone, especially to those~~
~~travelling on another way than the way immediately passing over by occurrence of~~
~~dangerous situations~~ another of said at least one tracked-vehicle.

10. (currently amended) The system according to claim 9, ~~characterized in that way, that the~~
~~units (18, 19) implanted in the area of the rails respectively tracks (21, 34, 35, 36), at~~

~~least consist of one unit for emission of a signal that marks the position of the unit respectively an encoding, e.g. of geographic co-ordinates wherein each of said plurality of said transmitter units includes a section for emission of a signal denoting position by geographic co-ordinates.~~

11. (currently amended) The system according to claim 9, ~~characterized in that way, that additionally a unit for receiving and storage of~~ wherein said storage unit receives and stores keydata of the said first track-guided vehicle (22, 37, 40, 42, 43, 44, 45) is foreseen
12. (currently amended) The system according to claim 9, ~~characterized in that way, that units are foreseen for the monitoring and controlling the position as well in the front area (22), especially in the locomotive or a driving element, as also in the back side (22'), especially the last wagon wherein said at least one track-guided vehicles include a first track-guided vehicle and a second track-guided vehicle, each of said vehicles having a forward end portion and an aft end portion, and one of said transmitter-receiver units is mounted at said front end portion of said first tracked-vehicle and one of said transmitter-receiver units is mounted at the aft end portion of said second tracked-vehicle.~~
13. (currently amended) The system according to claim 9, ~~characterized in that way, that in the vehicle (22, 37, 40, 42, 43, 44, 45) the units (2, 3, 4, 8) for the monitoring and controlling the position, for comparison with data referring to the distance and for emitting and for receiving of warning signals are~~ wherein said plurality of receivers units include a plurality of duplex receiver units, said plurality of duplex receiver units being coupled with a (said common control and arithmetic unit) (4) or preferably are integrated in this one.
14. (currently amended) The system according to claim 9, ~~characterized in that way, that the unit (2) for emission~~ wherein one of said duplex receiver units is a warning signals unit, said warning signals unit serving for emitting and for receiving of warning signals is

coupleable with (said driving units) of [the vehicle] said at least one tracked-vehicle (22, 37, 40, 42, 43, 44, 45) and ~~by occurrence of dangerous situations and influence of driving parameters of the vehicle, e.g. a reducing the speed by breaking, is feasible for reducing the speed of~~ said at least one tracked-vehicle.

15. (currently amended) The system according to claim 9 ~~characterized in that way, that the~~ units (18, 19, 47) implanted in the area of the tracks respectively rails (21, 34, 35, 36) ~~consist of , wherein~~ (said transmitter-receiver units) are selected from the group of transponders and/or and units for a laser marking.

C 16. (currently amended) The system according to claim 9, ~~characterized in that way, that the~~ transfer of signals, especially warning signals, is carried out via wireless or cable connection, especially a glass fibre cable, respectively wherein said warning signals are transmitted by a transmission means selected from the group of wireless or glass fiber cable via said [rail] tracked-rail (21).

17. (currently amended) The system according to claim 9, ~~characterized in that way, that at~~ respectively in the vehicle (22, 37, 40, 42, 43, 44, 45) additional displays, are foreseen, especially light signals units, for the displaying of the functionality further comprising illuminated display means for displaying the functionality of the system(.)